CLAIMS

1. Method for amplifying at least one specific nucleotide sequence of a synthetic or natural nucleic acid contained in a reaction mixture, the reaction mixture consisting of at least one nucleic acid comprising at least two related nucleotide sequences and/or of at least two nucleic acids, each comprising at least one related nucleotide sequence, the method using at least one type of amplification primer capable of hybridizing with the nucleic acid so as to allow the amplification of the related nucleotide sequences, characterized in that it consists in adding, to the reaction mixture, at least one sequence, acting as a blocking primer, which is capable:

- of hybridizing to at least one nucleotide sequence, which is not the specific nucleotide sequence(s) to be amplified, and
- of preventing, at the level of this nucleotide sequence, the elongation of the amplification primer.

2. Method according to claim 1, characterized in that the blocking primer(s) is (are) capable of hybridizing to the, or to all the, nucleotide sequences which are not the specific nucleotide sequence(s) to be amplified.

3. Blocking primer used in an amplification method according to either of claims 1 and 2, characterized in that each blocking primer is an oligonucleotide based on modified nucleotides and/or ribonucleotides and/or deoxyribonucleotides, such as PNAs or thiophosphate nucleotides.

4. Primer according to claim 3, characterized in that each blocking primer comprises at least one element which prevents the amplification.

5. Primer according to claim 4, characterized in that the element which prevents the amplification is located at the 3' end of the blocking primer and does not allow its elongation.

6. Primer according to claim 5, characterized in that the element which prevents the amplification is

located at the 5′ end of the blocking primer and acts as a protective element.

7. Primer according to one of claims 4 to 6, characterized in that each element which prevents the amplification consists of a nucleotide or modified nucleotide, or of an oligonucleotide which may or may not comprise at least one modified nucleotide, the nucleotide, modified nucleotide or oligonucleotide not hybridizing to the nucleic acid.

8. Primer according to any one of claims 4 to 6, characterized in that each element which prevents the amplification consists of a molecule other than a nucleotide or than a modified nucleotide.

9. Primer according to any one of claims 4 to 7, characterized in that the element consists of at least five, in particular at least ten, and preferably at least fifteen, nucleotides or modified nucleotides or a mixture of nucleotide(s) and modified nucleotide(s).

10. Primer according to any one of claims 4 to 7 or 9, characterized in that the element is sufficiently long to allow the formation of a loop and of hybridization between the nucleotides and/or modified nucleotides which constitute this loop.

11. Primer according to any one of claims 4 to 7 or 9, characterized in that the element consists of a "tail" of polynucleotides and/or of modified polynucleotides, which comprises all the same bases.

12. Primer in which the element does not allow the elongation, according to any one of claims 4, 5 or 7 to 11, characterized in that the element [lacuna] substituted for the hydrogen atom of the hydroxyl group or of [sic] the hydroxyl group, placed at the 3′ position of the ribose, itself located at the 3′ end of the nucleic acid.

13. Primer in which the element is protective, according to any one of claims 4, 6 to 12, characterized in that the element is:

- substituted for the phosphate placed at the 5' position of the ribose, itself located at the 5' end of the nucleic acid, or
- grafted onto the phosphate placed at the 5' position of the ribose, itself located at the 5' end of the nucleic acid.

add a_1